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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/502,093

07/22/2004

Keiji Otaki

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EXAMINER

BOLDEN, ELIZABETH A

ART UNIT

PAPER NUMBER

1755

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/502,093	<b>Applicant(s)</b> OTAKI ET AL.	
	<b>Examiner</b> Elizabeth A. Bolden	<b>Art Unit</b> 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/22/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The IDS submitted 22 July 2004 has been considered by the Examiner.

### ***Specification***

The abstract of the disclosure is objected to because in several places there are minor typographical errors. See page 3, line 25 for an example, the phrase " $B_2O_3$  by 0 to 12wt," should actually read - " $B_2O_3$  0 to 12 wt%,- -". In this example the "%" symbol was omitted but there is also an inconsistency between whether there is a space between the value and "wt%". And the examiner is

Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

Claims 1-8 are objected to because of the following informalities: minor typographical errors.

For example, in claim 1, line 3, the phrase " $B_2O_3$  by 0 to 12wt," the "%" symbol was omitted but there is also an inconsistency between whether there is a space between the value and "wt%". Furthermore, the phrase " $B_2O_3$  by 0 to 12wt," appears to be a literal translation into English from a foreign document the examiner recommends rewriting the claim in a similar format as follows, for clarity.

1. A glass composition to be used for manufacturing inorganic fiber, containing 52 to 72 wt% of  $SiO_2$ , less than 3 wt%  $Al_2O_3$ , 0 to 7 wt% of  $MgO$ , 7.5 to 9.5 wt % of  $CaO$ , 0 to 12 wt% of  $B_2O_3$ , 0 to 4 wt% of  $BaO$ , 0 to 3.5 wt% of  $SrO$ , 10 to 20.5 wt% of  $Na_2O$ , 0.5 to 4 wt% of  $K_2O$ , 0 to 5 wt% of  $P_2O_5$ .

Appropriate correction is required.

### ***Claim Interpretation***

Claim 1 recites “glass composition to be used for manufacturing inorganic fiber”; this intended use does not require the glass composition to be in the form of a fiber.

Claims 7 and 8 recite “The glass composition according to one of claims 1-6, wherein raw material of the glass composition contains cathode ray tube glass and/or liquid crystal glass by 0 to 50 wt%.” It is unclear to the Examiner how the initial starting materials of the glass composition materially affect the resultant glass materials. Would it alter the instant glass composition if the glass was batched from pure batch materials rather than recycled materials? Since the glass compositions made by different methods are not material different from each other this limitation has no weight in the instant glass composition.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 7, and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by  
Carbol, U.S. Patent 4,381,347.

Carbol disclose a glass fiber composition having overlapping ranges of components with instant claims 1, 2, 5, 7, and 8. See Abstract and column 2, lines 17-32. The compositional ranges of Carbol are sufficiently specific to anticipate the glass as recited in claims 1, 2, and 5. See MPEP 2131.03. Moreover, Carbol disclose Examples 1-4, which anticipate instant claims 1 and 2. See Table 1.

Claims 7 and 8 define the product by how the product was made. Thus, claims 3 and 6 are product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply that the glass is made from a cathode ray tube glass. However, the glass of Carbol would have the same structure regardless is

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it was batched using powder raw materials, glass cullet of the instantly claimed glass composition, or a recycled cathode ray tube glass.

Claims 1, 2, and 7-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hobson et al., U.S. Patent 4,454,238.

Hobson et al. discloses a glass fiber composition having overlapping ranges of components with instant claims 1, 2, 7, and 8. See Abstract and column 2, lines 51-65. The compositional ranges of Hobson et al. are sufficiently specific to anticipate the glass as recited in claims 1 and 2. See MPEP 2131.03. Moreover, Hobson et al. discloses Examples 6, 7, 9, and 10, which anticipate instant claims 1 and 2. See Tables in column 3. Hobson et al. disclose that the fiber and fiber products are made by conventional methods using conventional ingredients and additives. See column 1, line 5 to column 2, line 12 and column 4, lines 2-17.

Claims 7 and 8 define the product by how the product was made. Thus, claims 3 and 6 are product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply that the glass is made from a cathode ray tube glass. However, the glass of Hobson et al. would have the same structure regardless if it was batched using powder raw materials, glass cullet of the instantly claimed glass composition, or a recycled cathode ray tube glass.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rouyer et al., International Patent Publication WO 95/32925.

Rouyer et al. discloses a glass fiber composition having overlapping ranges of components with instant claims 1-5, 7, and 8. See Abstract and page 2, lines 5-21. The compositional ranges of Rouyer et al. are sufficiently specific to anticipate the glass as recited in claims 1-5. See MPEP 2131.03. Moreover, Rouyer et al. discloses Examples 68-11, which anticipate instant claims 1, 2, and 5 and Example 15, which anticipate instant claims 1, 2, 3, and 5. See Table I. Rouyer et al. disclose that the fiber and fiber products are made by conventional methods using conventional ingredients and additives. See page 1, lines 18-26 and page 5, lines 1-2.

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Claims 7 and 8 define the product by how the product was made. Thus, claims 3 and 6 are product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply that the glass is made from a cathode ray tube glass. However, the glass of Rouyer et al. would have the same structure regardless if it was batched using powder raw materials, glass cullet of the instantly claimed glass composition, or a recycled cathode ray tube glass.

Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rapp et al., U.S. Patent 5,523,265.

Rapp et al. discloses a glass fiber composition having overlapping ranges of components with instant claims 1-3 and 6-8. See Abstract and column 1, line 50 to column 2, line 5. The compositional ranges of Rapp et al. are sufficiently specific to anticipate the glass as recited in claims 1-3 and 6-8. See MPEP 2131.03. Moreover, Rapp et al. discloses Example 8, which anticipate instant claims 1, 2, and 5. See Table in columns 3 and 4. Rapp et al. disclose that the fiber and fiber products are made by conventional methods using conventional ingredients and additives. See column 1, lines 10-32.

Claims 7 and 8 define the product by how the product was made. Thus, claims 3 and 6 are product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply that the glass is made from a cathode ray tube glass. However, the glass of Rapp et al. would have the same structure regardless if it was batched using powder raw materials, glass cullet of the instantly claimed glass composition, or a recycled cathode ray tube glass.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard et al., U.S. Patent 6,060,413.

Bernard et al. teach a glass composition having overlapping ranges of components with instant claims 1-5. See Abstract, column 1, lines 5-20, column 1, line 63, to column 2, line 17, column 2, lines 43-64, and column 35-58.

Bernard et al. fail to teach any examples or compositional ranges that are sufficiently specific to anticipate the compositional limitations of claims 1-5. However, overlapping ranges have been held to establish prima facie obviousness. See MPEP 2144.05.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to establish prima facie obviousness. See MPEP 2144.05.

Bernard et al. teach that the fiber is made by standard fiberizing methods and to form mineral wool substrates as recited in claims 9 and 10. See column 1, lines 5-45.

Claim 3 defines the product by how the product was made. Thus, claim 3 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply that the glass is made from a cathode ray tube glass. Bernard et al. teach that the glass composition is in the form of fibers and that the glass can be made from reclaimed glass materials. See column 1, lines 5-20, column 4, lines 29-37, and column 7, lines 14-18. However, the glass of Bernard et al. would have the same structure regardless if it was batched using powder raw materials, glass cullet of the instantly claimed glass composition, or a recycled cathode ray tube glass.

### ***Conclusion***

The additional references cited on the 892 have been cited as art of interest since they are considered to be cumulative to or less than the art relied upon in the rejections above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 571-272-1363. The examiner can normally be reached on 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EAB

14 September 2007

  
**J.A. LORENGO**  
**SUPERVISORY PATENT EXAMINER**